



**Permit to Construct or Modify** an Air Contaminant Source Issued Pursuant to Tennessee Air Quality Act

Date Issued: August 7, 2014

Permit Number:

968778P

Date Expires: August 7, 2015

Issued To:

ASPEN TECHNOLOGIES, INC.

Installation Address:

1335 Manchester Industrial Pkwy.

Manchester

Installation Description:

Coating of Product Molds (forms) using  
Product Release Material and One Spray  
Booth w/Exhaust Filter Control  
Consists of Four Production Lines -  
One of Four Lines Is Also Equipped for Painting Molds

Emission Source Reference No.

16-0213-01

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

**Conditions:**

1. The application that was utilized in the preparation of this permit is dated **May 30, 2014**, signed by **Daniel F. Knezevich**, New Program Development Manager of the permitted facility. If this person terminates employment or is assigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

(Continued on the next page)

  
TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

**POST AT INSTALLATION ADDRESS**

2. Volatile organic compounds (VOC) emitted from this facility shall not exceed **42.7** tons during any period of 12-consecutive months. Compliance with this limit shall be demonstrated from the records required by **Condition 6**.

This emission limitation is established pursuant to Rule 1200-03-07-.07(2) of the Tennessee Air Pollution Control Regulations.

3. Particulate matter emitted from this source shall not exceed **0.02** grains per dry standard cubic foot of exhaust gas (**1.03** pounds per hour). The paint application process shall not operate without the use of exhaust filter control.

This emission limitation is established pursuant to Rule 1200-03-07-.04(1) of the Tennessee Air Pollution Control Regulations.

4. Visible emissions from this source shall not exhibit greater than twenty percent (**20%**) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

This condition is established pursuant to Rules 1200-03-05-.03(6) and 1200-03-05-.01(1) of the Tennessee Air Pollution Control Regulations.

5. The as-supplied VOC content of all VOC-containing materials and the as-supplied hazardous air pollutant (HAP) content of all HAP-containing materials to be used by sources at this facility shall be determined from MSDS or manufacturer or vendor formulation data, which explicitly list the VOC and the HAP content by weight.

6. The permittee shall calculate the actual quantities of VOC and HAPs emitted from this facility for each calendar month and maintain records of these emissions in the following tabular format or an alternative format which readily provides the same required information that shows compliance with **Condition 2** of this permit (see example below). HAPs emissions records are required to show that emission levels are below Title V threshold. This log must be maintained at the source location and kept available for inspection by the Technical Secretary or a Division representative. This log must be retained for a period of not less than two (2) years.

**LOG 1 - Monthly Log for VOC/HAPs Emissions for 16-0213-01**

Month \_\_\_\_\_ Year \_\_\_\_\_

Process Material	Usage (gal/mo)	Material Density (lb/gal)	VOC Content (lb/gal)	VOC Emissions (ton/mon)	HAP i Content (lb/gal)	HAP i Emissions (ton/mo)	Total HAP Content (lb/gal)	Total HAPs Emissions (ton/mo)
Mold Release								
Thinner(s)								
Clean-up solvent								
Etc.								
Totals:								

Note:  $i = 1, 2, 3 \dots n$  = the number of different hazardous air pollutants. Use columns as required for the number of different hazardous air pollutants.

**LOG 2 - 12-Consecutive Months Log For VOC/HAPs Emissions for 16-0213-01**

[illegible]

- (1) This log lists the individual month totals.
- (2) The totals for 12-consecutive months on this log must comply with the requirements in **Condition 2**.
- (3) The Tons per 12 Month value is the sum of the VOC (or HAP) emissions in the 11 months preceding the month in which the 12-month period is completed. If data is not available for the 11 months preceding the initial use of this Table, this value shall be the sum of the first month and the second month. Indicate, in parentheses, the number of months summer VOCs and HAPs emitted to the air on a 12-consecutive month basis.

7. If this facility has actual emissions from stationary sources (including sources considered insignificant activities) of **10.0** tons or more of a single hazardous air pollutant (HAP) or **25.0** tons or more of multiple HAPs during a 12-month period, this information shall be reported to the Technical Secretary within **15** days of the date of discovery.
8. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control devices. Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than two (2) years.  
  
1200-03-10-.02(2)(a)
9. All data, including all required calculations, must be entered in the log no later than thirty (30) days from the end of the month for which the data is required.
10. Purchase orders and invoices or a record of purchase orders or invoices for all VOC containing materials must be maintained and kept available for inspection by the Technical Secretary or a Division representative. These orders and invoices must be retained for not less than two (2) years.  
  
1200-03-10-.02(2)(a)
11. Excess emissions due to malfunction, start-up, and shutdowns shall be addressed as specified in Chapter 1200-03-20 of the Tennessee Air Pollution Control Regulations.
12. This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application. TAPCR 1200-03-09-.01
13. This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards. TAPCR 1200-03-09-.03(8)
14. Pursuant to 1200-03-09-.02(3) of the Tennessee Air Pollution Control Regulations, this permit shall serve as a temporary operating permit from initial start-up to the receipt of a standard operating permit (regardless of the expiration date), provided the operating permit is applied for within thirty (30) days of initial start-up and the conditions of this permit and any applicable emission standards are met.

15. The Permittee shall certify the start-up date of the air contaminant source regulated by this permit by submitting

**A COPY OF ALL PAGES OF THIS PERMIT.**

with the information required below completed, to the Technical Secretary's representatives listed below:

DATE OF START-UP: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
month day year

For the purpose of complying with this condition, "start-up" of the air contaminant source shall be the date of the setting in operation of the source for the production of product for sale.

The undersigned has the full authority to represent and bind the Permittee in environmental permitting affairs. The undersigned further represents that the above provided information is true to the undersigned's best knowledge and belief.

Signature		Date
Signer's name (type or print)	Title	Phone (with area code)

Note: This certification is not an application for an operating permit. At a minimum, the appropriate application form, usually an APC-20, must be submitted requesting an operating permit. The application must be submitted in accordance with the requirements of this permit.

The completed certification shall be submitted to West TN Permit Program at the address listed below no later than thirty (30) days after the air contaminant source is started-up.

West TN Permit Program  
Division of Air Pollution Control  
William R. Snodgrass TN Tower  
312 Rosa L. Parks Avenue, 15<sup>th</sup> Floor  
Nashville, TN 37243  
or  
Email to: Air.Pollution.Control@tn.gov

**End of Conditions**

## Emission Summary

Permit Number: 968778P

Source Status: New ☒ Modification ☐ Expansion ☐ Relocation ☐

Permit Status: New ☒ Renewal ☐

PSD ☐ NSPS ☐ NESHAPs ☐

Previous Permit Number:      Construction \_\_\_\_\_ Operation \_\_\_\_\_

	Pounds/Hour			Tons/Year				Date of Data	*	Applicable Standard 1200-03-
	Actual	Potential	Allowable	Actual	Potential	Allowable	Net Change			
TSP	neg	neg	1.03	neg	neg	4.5				07-.04(1)
SO <sub>2</sub>										
CO										
VOC	11.2	4.6	-	21.5	42.7	-				07-.07(2)
NO <sub>x</sub>										
HAP										
GHG										

\* For FEE ONLY.

West Permitting Program: R. Benjamin

DATE: August 6, 2014

# CONSTRUCTION PERMIT SUMMARY REPORT

Company Name: 16-0213 EPS Initials: RJB  
Permit Number(s): 968778P Source Point Number(s): 01  
Application Received (date): 6.2.2014 Application Complete (date): 6.2.2014  
Air Quality Analysis Performed? Yes ☐ No ☒

Briefly describe the project: (new source, modifications) (what the process is) (type controls proposed) (emissions expected, qualitative) (replacing what sources) (background information)

This is a true minor VOC source and located in Manchester. The process fills molds (forms) with polyurethane foam. A material to release the product is needed. The release material is VOC based. Four production lines are involved. There are 7 wall fans without filters. One production line of the four will paint the molds prior to filling with the foam. The molds are heated by hot water from an electric water heater. The mold release material is applied before the paint and the foam. The PM emissions from the release material are negligible. Once cured the painted product is removed from the form. A 6,000 CFM fan filter controls the paint line emissions for the fourth line. The other work cells have no emission controls for VOC or PM. The Director of External Affairs in the Columbia EFO attempted to expedite the CP by providing the PN to the applicant for publishing. The applicant indicated that for this operation there is no styrene involved in the production. The polyurethane is totally reacted per applicant. The three VOC sources are Line 4-(rel. matl.), Line 4 (painting) and Lines 1,2,3. The VOC emissions for these sources are **3.5, 16.5, and 22.7** tons per year, respectively. The total VOC emissions are **42.7** tons per year. The amount of single HAPs emissions indicated by the MSDS for the paint could make the source T5 at 11 tons/ yr. The applicant was not aware of this possibility. The facility plans to wait no earlier than the 4<sup>th</sup> quarter to use the paint line. At this time the permit will allow using HAPs materials, if needed. The applicant indicated they don't want to be T5.

## Rules Analysis

Title V ☐ Cond. Major ☐ Minor ☒ Source category listed in 1200-03-09-.01(4)(b)1.(i)? Yes ☐ No ☒

Reason for PSD:	New source above <u>    </u> TPY <input type="checkbox"/>	Sig. increase in <u>    </u> emissions <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NSPS:	40 CFR Part 60, Subpart <u>    </u> <input type="checkbox"/>	State Rule 1200-03-16- <u>    </u> <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Applicable NESHAP:	40 CFR Part 61, Subpart <u>    </u> <input type="checkbox"/>	State Rule 1200-03-11- <u>    </u> <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
“      ”	40 CFR Part 63, Subpart <u>    </u> <input type="checkbox"/>	State Rule 1200-03-31- <u>    </u> <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

## Other Applicable State Rules

TSP Emissions:	1200-3-07-.04(1) <input type="checkbox"/> N/A <input type="checkbox"/>	NO <sub>x</sub> Emissions:	1200-03- <u>    </u> - <u>    </u> <input type="checkbox"/> N/A <input type="checkbox"/>
SO <sub>2</sub> Emissions:	1200-3-14-.01(3) <input type="checkbox"/> N/A <input type="checkbox"/>	Lead Emissions:	1200-03- <u>    </u> - <u>    </u> <input type="checkbox"/> N/A <input type="checkbox"/>
CO Emissions:	1200-3-07-.07(2) <input type="checkbox"/> N/A <input type="checkbox"/>	<u>    </u> Emissions:	1200-03- <u>    </u> - <u>    </u> <input type="checkbox"/> N/A <input type="checkbox"/>
VOC Emissions:	1200-3-18-.43 <input type="checkbox"/> N/A <input type="checkbox"/>	<u>    </u> Emissions:	1200-03- <u>    </u> - <u>    </u> <input type="checkbox"/> N/A <input type="checkbox"/>

Visible Emissions from this source not to exceed 20 % opacity per Method 9 (Rule 1200-03-05-.01(1))  
Visible Emissions from                      not to exceed      % opacity per Method      (Rule 1200-03-    -    )  
Visible Emissions from                      not to exceed      % opacity per Method      (Rule 1200-03-    -    )